STRATEGY RESEARCH PROJECT

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TAKING THE ARMY THROUGH THE LOOKING GLASS

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ABSTRACT

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The bottom line in any change, especially one as important to US national security as the Transformation of its Army, requires ground-swell support for a leader's vision.
Transformation of the Army is a fact because the Army leadership has said so, but that's not reason enough for change; the strategic environment of the present and foreseeable future is the real driver. How to inculcate the true rationale for Transformation and build the irreversible momentum to support the necessary change is the real challenge our leadership faces.
This paper will address how to achieve this in light of four major points: the contextual basis of change (how the Army has done it before), external constraints imposed by society and government (what do we want an Army for?), the notion of internal "service cultures" (groups which may be resistant to change), and testing innovations for validity (are there course corrections required enroute to the Objective Force/how do you adjust?).

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"Who are you? said the caterpillar. "I-I hardly know, Sir, just at present-at least I know who I was when I got up this morning, but I think I must have changed several times since that." "What do you mean by that?" said the caterpillar, " explain yourself!" "I can't explain myself, I'm afraid, sir," said Alice, "because I'm not myself, you see." "I don't see," said the caterpillar. "I'm afraid I can't put it more clearly," Alice replied very politely, "for I can't understand it myself, and really to be so many sizes in one day is very confusing." "It isn't," said the caterpillar. "Well perhaps you haven't found it so yet," said Alice, "but when you have to turn into a chrysalis, you know, and then after that into a butterfly, I should think it'll feel a bit queer, don't you think so?" "Not a bit," said the caterpillar. "All I know is," said Alice, "it would feel queer to me." "You!" said the caterpillar contemptuously, "who are you?"

—Lewis Carroll

Alice has followed a talking white rabbit with a waistcoat and pocket watch down a hole, finally coming to a stop after a seemingly endless journey. She finds a key, opens a door, and glimpses a beautiful garden-perhaps a place she would like to stay. But Alice just cannot make herself fit through the door; she has to resize herself somehow. Her quest to enter the garden leads her through many toils and challenges, like swimming in a pool of her own tears and contact with characters of disorder and chaos. All of her efforts to change herself to achieve the right size to fit through the door leave Alice to ask constantly the question posed to the caterpillar above: "Who am I?" In the end, Alice makes it into the garden, only to find it not at all what she expected. Disillusioned and angry with this realization, she begins to voice loudly her displeasure-startling herself awake to discover that the whole strange journey underground had been a dream and she was safely back on the banks of the stream with her sister: her status quo orderly life.

Many in our Army today may feel much like Alice in her adventures in Wonderland. Taking risk to move from the familiar into the uncertain without familiar waypoints or where nonsensical happenings seem to be the norm is as disconcerting to people who thrive on order as it was to Alice while underground. But it may not be her underground adventures that provide a proper allegory for our Army as it seeks successful transformation. If Alice provides us any point of reference it may be in her follow-on adventures through the looking glass. There, Alice also finds conflicting and strange things happening. But there are some not so subtle differences between the adventures underground and those on the other side of the mirror. In the latter, the environment retains some semblance of the ordinary. The world is laid out much like a chessboard, for example. The characters within the world are certainly different, but not so

much so that Alice can't define herself in their terms. In fact, she no longer ponders who she is, but instead seeks to establish herself in relation to the other characters in their world; hence her desire to be Queen on the chessboard. When Alice returns from her fantasy world to her "real" living room, there is a sense that she has realized the lessons of her time beyond and will bring that knowledge with her into maturity.[1]

Looking into a mirror provides a person essentially two images: a reflection of himself as he currently exists and the background in which he exists. To take this a step further, the standard looking glass provides an objective self-image portrayed in the context of where the object is and has been. For our Army, this is a snapshot in time of a current state that is familiar, explainable, rational; an Army that is powerful, successful, and currently without peer in the world. But as we transcend the present and move into the future, it may also be circular and perhaps paradoxical logic to assume that that the two-dimensional image and contextual background provided by the "traditional" use of the mirror provides an accurate assessment of the Army in the future security environment; that what has worked in the past will continue to work in the future.[2] Alice certainly found differences when she crossed the mantelpiece "through her looking glass." As we continue on the road to transform our Army into the force for the future, it is time for us to look beyond the reflection with which we are comfortable and into something like Alice found when she first crossed into that new place, "and noticed that what could be seen from the old room was quite common and uninteresting, but that all the rest was as different as possible."[3]

BACKGROUND

The United States emerged victorious from the Cold War and instantly inherited sole global superpower status. With this mantle of triumph, however, came immediate responsibility. The first couple of tests of this power: Operation Urgent Fury in Panama and Desert Shield/Storm among others, provided proof that the conventional forces built and trained to defeat the Soviet Union were more than adequate to do the same to others. But the "others" continued to adapt, prompting bad things to happen in the world, a world that increasingly looked to us for help and leadership. Missions in Somalia, Haiti, Rwanda, Bosnia-Herzegovina, Macedonia, Kosovo and others proved that we had the commitment and power to act when called, but maybe with forces and training that were not ideally suited to the changing nature of conflict.

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Clausewitz warns us that "the first, the supreme, the most far-reaching act of judgment that the statesman and commander must make is to establish...the kind of war on which they are embarking; neither mistaking it for, nor trying to turn it into something that is alien to its nature."[4] Equally important is that the forces chosen to prosecute the war possess the means for successfully accomplishing the mission within acceptable risk. So, if the United States wants to maintain its position as sole superpower into the future we must retain the military power to deter potential enemies by the threat of force, and when ordered to fight we must win decisively.

The Secretary of the Army, Louis Caldera, and Chief of Staff of the Army, General Eric K. Shinseki, jointly issued the vision for this force in October 1999. The banner slogan, "Soldiers on point for the nation, persuasive in peace...invincible in war" sums up the Army's role in the post-Cold War world order.[5] We will be engaged throughout the world in pursuit of national interests as directed by our political leadership to deter potential enemies by the presence of power. If deterrence fails and we must fight, then we will do so and win decisively. Concurrent with this statement, however, came the recognition that the current force structure of the Army would be hard-pressed to support this vision in the present and may consistently decline into the future. Thus was born the Army Transformation, a three-pronged approach to retain power in the present to meet the varied global strategic demands of our nation and build a force to meet the demands of the future security environment.

Many would say that Transformation is merely an inevitable extension of an obvious global revolution in military affairs (RMA) brought on by the near simultaneous explosion of information technology and the demise of the Soviet Union. There have been consistent and conscientious efforts in the Army to lead in the application of technology to future warfare through the Force XXI/Advanced Warfighting Experiments and other measures. It is certainly true that incredibly difficult work continues on this avenue of approach into the future, but that is only one portion of Transformation. The RMA, if there really is one ongoing, lies in much more than technology alone. In fact, what Transformation really must be is a complete and ongoing estimate of the strategic environment and our strategic ends first, followed by an honest evaluation of the ways to achieve the ends, and then determining and building the means to successfully execute the ways; and the Army in concert with the other services must accomplish it. By working the process from the objective backwards, much like planning a tactical attack, we define those capabilities that provide the potential for success and determine points of risk. This is especially important in this era where we have finite resources and no clear definable threat, but must prepare for the future by developing flexible and tailorable capabilities.[6]

Whether there is an ongoing RMA or not remains a debatable point. What is clear, however, is that we are an Army in Transformation and not simply because Secretary Caldera and General Shinseki said so; that's not reason enough. The present murky strategic environment and the foreseeable future are the real drivers and balanced against the security of the nation that cannot be placed at risk. But change is never easy, especially in a tradition-bound and hierarchical structure like the Army. For real change to occur, it must be embraced by The Army in the field-those charged with bringing it to life. Ground-swell support for our leadership's vision requires the inculcation of the true rationale for Transformation. The method by which we get there is to build the conditions of irreversible momentum outlined in the campaign plan: "...a rate and scope of change that can survive individual decision-makers and singular discrete decisions...generally perceptions based: therefore it is frequently associated with strategic communications efforts."[7] Communication; up, down, and laterally is the key to success for building irreversible momentum.

The leaders and the led must understand the dynamics at work when trying to change The Army. The history of The Army provides some excellent examples of how to do it right, and some pitfalls to avoid. The key is to communicate the method of transformation and continue to emphasize the relevance of the need for change. Up to this point; we understand the objective, our leaders have given us a general course of action, and now we must identify those criteria of success and points of risk that require additional attention. The succeeding pages attempt to identify some of the challenges associated with change and propose some ideas for mitigating risk. There are many methods by which judgments can be made, but one that draws on the experience of others who have analyzed change seems highly appropriate.

In an article on military innovation in the inter-World War years, Dennis Showalter, a noted military historian, comes to four general conclusions that will be used as a framework to review the current Army Transformation. First, change is contextual, based on the environment in which it operates-How has change been successful in the past? Second, military organizations and especially armies have external constraints imposed on them by the society and government they serve-What do they want an Army for? Third, the notion of internal groups or service cultures that can enhance or inhibit change-How to provide the environment for healthy professional debate to achieve the best product without being dragged down? Fourth and last, what are the means to test the change before committing to the next "first battle"-How does we know if course corrections are required?[8] Each of these questions could be a book in itself, but the goal of this paper is to provide some basic illustrative points of consideration, hopefully for further debate and use by the leaders and led to enhance the important

transformation of our Army into an organization as relevant and dominant into the future as it is today-to get through the looking glass and beyond, not trapped underground trying to make ourselves fit in order to get somewhere we don't really want to be.

CHANGE IN CONTEXT

> "...Specific innovations, technical or institutional, are less significant than the creation of a positive synergy among material and doctrine, service cultures and the wider social and political systems to which these cultures belong. The creation of such a synergy, however, is not an end in itself. It is rather, a sophisticated tool in the hands of reformers whose ultimate responsibility is to enhance the security of the state and the society they serve by changing military institutions to meet the problematical demands of an uncertain future."[9]

The quotation above could easily describe the current challenges faced by the US Army in 2001, but is actually referring to the period between the World Wars. Change is a constant in history, some examples of which may provide illumination on our discussion of the current Army transformation. The method of critical analysis outlined by Clausewitz and updated by Eliot Cohen and John Gooch is a proven method to evaluate a couple of critical change periods in our Army: Discover the facts (what happened?), trace the effects back to their causes (what was or was not done which led to what happened?), and evaluate the means employed (what contributed to the outcome, either by omission or commission?).[10] The potential examples are numerous, but for the purpose of brevity, and clarity as well, I will focus on two relatively recent periods that continue to impact our Army today: the post-World War II/Korean War period and the post-Viet Nam War period.

Dr. Williamson Murray instructs us that military innovation can be revolutionary or evolutionary. In the former, the innovation is almost autocratic. Something so radical has happened in technology or intellectual conception that change must occur immediately and with little room for debate or foot-dragging. Because of this radical departure from the norm, the results of this change afford small margins for error-the leaders either get it very right or very wrong. In evolutionary change, the results are slower in coming, because the innovation requires an organizational focus over sustained periods rather than a top-down declaratory shift. Evolutionary change provides more room for experimentation and course correction enroute, but by virtue of the factors of relatively slow speed, the results are less immediately visible or tangible to others.[11] Each can be effective in their own right, largely dependent on how the innovation is implemented.

An example of revolutionary innovation occurred in the US Army with the advent of nuclear weapons. The leaders in 1945 viewed a strategic horizon that should have been fairly clear. There were obvious winners and losers of World War II. Nazi Germany had been defeated by the joint and combined weights of the allies through conventional application of force from ground, sea and air into military, political, and economic capitulation. But the emergence of a new threat from a former ally, the Soviet Union and its declaratory policy of communist expansionism deeply muddied the international security environment. In the Pacific Theater, Japan was also threatened by land, sea, and air from the combined forces, but ultimately surrendered when attacked by unconventional means-the atomic bombs on Hiroshima and Nagasaki. The dramatic technological impact of nuclear weapons opened a phase of history and change in the global security apparatus that was, and is, irrevocable.

The period immediately following Allied victory saw drastic reductions in military forces and budgets as priorities shifted to domestic issues. The security environment remained extraordinarily dangerous, however, as events in Europe, Korea, and Indo-China among others would quickly bear out. Carl Builder describes these as "landscape features" which have large commonality with our security environment today. In addition to the enormous technological and political change, the irrevocable shift in global security, and declining military budgets/shifting priorities, he also outlines the factors called "disorientation" and "hanging on." The former alludes to the continued application of prevailing concepts that no longer seem to apply to the current situation but have no obvious replacement. The latter is the military habit of attempting to make what we have fit despite obvious changes in the security environment. The Korean War was certainly fought with World War II style units, equipment, and tactics, while the threat of nuclear weapons kept Europe in its own state of armed truce into the mid-1950s supported on the ground by a US Army not equipped or manned to defeat Soviet forces in conventional battle. [12]

So, in the face of declining budgets, reliance on nuclear weapons, and questioning of the relevance of a conventional ground force, the leadership of the Army developed a revolutionary plan for transformation within President Eisenhower's overarching security theme of the "New Look." The Army in the mid-1950s shared some striking similarities to our organization today; difficulties in meeting enlistment/reenlistment goals, political debates on the relevance of sustaining a large standing army, and disenchantment with the Army among junior officers leading to the resignation of around 132,000 between 1954 and 1956.[13] This environment, when added to the overwhelming strategic dimension framed by the increasing proliferation and destructive power of nuclear weapons posed a challenge for the US Army faced with survival.

Generals Ridgway, Taylor, and Gavin, among others developed a process of change which resulted in the Pentomic series of organization; each level of formation would be built in blocks of five in order to meet the Army requirements of dispersion, flexibility, and mobility to provide a multi-functional force to fight across the spectrum of foreseeable conflict. A.J. Bacevich sums up the focus of the revolutionary change in this era by stating that "...A great institution like the Army is always in transition...grappling for the first time with the perplexing implications of nuclear warfare; seeking ways of adapting its organization and doctrine to accommodate rapid technological advance; and attempting to square apparently revolutionary change with traditional habits and practical constraints of the military art."[14]

This is not to imply that the entire Army was enamored with the Pentomic system or its apparent focus on the seemingly technological panacea that nuclear weapons provided for the modern security strategy. Much of the criticism of the time, and in history, lies in the Army's apparent reliance on technology to solve the problems posed by nuclear weapons on the future relevance of ground forces. I would argue, however, that the leadership of the day took a more holistic view of the importance of ground forces and the need to demonstrate relevance and instituted revolutionary innovation first in the doctrine and organization, followed by shifts in training of units and leaders, and then fielded new materiel; a classic use of the model we know today as DTLOMS (doctrine, training, leader development, organization, materiel, and soldiers)- or the model by which we analyze our capability to meet our strategic requirements and make adjustments. An important point to note in this era is that despite the revolutionary or top-down nature of the innovation of the Pentomic era, there remained as strong exchange of ideas on the specifics of the transformation in the Army. In the period 1955-1959 alone, over 130 articles were published in various service journals and magazines on the doctrine, tactics, techniques, procedures, organizations, training, and materiel requirements of the relevant ground force in the era of nuclear/atomic combat.[15]

There was the pressing problem posed by nuclear weapons, but there was also a large Soviet Army ostensibly posed for the invasion of Western Europe. Also on the horizon, as demonstrated by our own involvement in the Korean War and Lebanon along with the French experience in Indochina and the British in multiple insurgencies, a growing trend toward "smaller" wars which would require trained and ready ground forces with the capability of operating under the principles of dispersion, flexibility, and mobility; albeit without the specter of nuclear weapons. This required what Lieutenant General Gavin described in 1955 as "forces in being;" units sustaining high levels of combat readiness that are organized, trained, and equipped for immediate deployment and employment across the spectrum of conflict.[16]

To apply the critical analysis model to the Pentomic era version of Army transformation may be a bit disingenuous because it was never really challenged. Perhaps that is a measure of success in its own right. The Army as a supporting player, provided the means; forward deployed tactical formations capable of surviving the nuclear battlefield to occupy ground and defeat other ground forces; to achieve the chosen way-nuclear deterrence against the Soviet Union; to achieve the strategic end of national survival of the United States. By taking a revolutionary step in innovation, the Army retained force structure and resources and therefore also provided itself with the means to continue the development and experimentation of other concepts of emerging warfare such as the airmobile concept and use of unconventional special operations forces. The Pentomic structure itself, was fairly short-lived as an organization and doctrine, but its impact as a means of innovation was enormous. Given the environment of the mid-1950s, the execution of revolutionary innovation was probably the only course of action available to men like Ridgway and Taylor.

If the Pentomic era offers an example of revolutionary innovation, then a complementary example of evolutionary innovation in the US Army with enormous results is the post-Viet Nam War era. Certainly the experiences of the war remained with the Army; perhaps remain with us even today. Regardless of any assessment on the tactical outcome of the war, however, the leadership of the Army in the mid-1970s clearly recognized that they were faced with a need for change. Allan R. Millet describes patterns of innovation in the inter-World War years as four distinct yet interrelated factors; the influence of strategic context, technological change, the military organization as a body politic and its encouragement/discouragement of innovation, and the civil-military relationship with parallel technological and organizational development.[17] These factors are equally applicable to the US Army in 1973.

The Soviet Union remained the threat and nuclear weapons were omnipresent. In addition to their vast nuclear arsenal, however, the Soviets had also continued to build and modernize conventional capabilities that they exported to numerous client states throughout the world. The 1973 Arab-Israeli War was a surrogate showcase for the world on modern conventional combined arms battle using Soviet and US equipment, and both sides watched with great interest as the events of the Fall of 1973 unfolded.

The military organization charged with executing analysis of events and innovation for the U.S. Army was the newly formed Training and Doctrine Command (TRADOC) under General William DePuy. The accomplishments of TRADOC and its subordinate groups are well-recorded in other works, but the external environment which provided TRADOC the medium in which to work and the prevailing climate within TRADOC itself provide the true nugget of value

for successful transformation today. The Army leadership provided by General Abrams established both the organization and its charter to be innovative, but also worked tirelessly to ensure that the required resources would be available to make the necessary innovations feasible. The assurance of force structure, funding, manning, and equipment development/modernization were all key factors for the future success of the Army for which TRADOC was writing doctrine and training programs.

The results of TRADOC's efforts, beginning with the 1976 edition of FM 100-5, Operations, continue to permeate the fabric of the Army today. The manual "...confronted directly the prime strategic problem the Army faced: a US force quantitatively inferior in men and equipment on an armor-dominated European battlefield."[18] Greater than the product itself, however, is the process by which it and other emerging ideas were developed. In a letter to the various Army schools and centers under his command in July 1974, General DePuy provided a concept paper on doctrine and tactics, the precursor to FM 100-5. He likened the concepts to a pot of soup in a French peasant's house; always on the stove available for consumption and open for adding ingredients to make it better.[19] The analogy for evolutionary innovation is clear; you get a better product when you put out the base for all to consume and encourage useful input from all quarters. It takes longer and may be more inefficient, but given the availability of time and the willingness to accept some additional risk in the present, the future product may be exponentially better. There has been some criticism of the scope of the input for the 1976 version of 100-5, that it was not inclusive enough. But the succeeding versions of 100-5, and the incredible growth of the dialogue between the field, the Combat Training Centers, TRADOC schools, think tanks and others bears out the value of the process.

This clearly was the case in the post-Viet Nam era of innovation. The results were not quickly forthcoming and there were certainly some dark days. But progress was evolutionary; in every component of DTLOMS the Army improved. Against the factors of critical analysis, the means employed were never tested on the battlefields of Europe because of the demise of the Soviet Union, but the deterrent factor posed by the conventional ground forces of the Army in concert with the combined air, naval, and nuclear power of the nation was enormous. That the Army was able to execute numerous successful operations outside of Europe using the innovations provided by the leaders of this evolutionary era is an additional, if unforeseen, testament to its enduring quality. The strategic ends of national survival, proliferation of democracy, supporting economic growth, and support of allies were all superbly met by our military.

Both revolutionary and evolutionary innovations are feasible methods of producing real and enduring change and are not mutually exclusive. The central theme is the clear establishment of an overarching vision or purpose for the change and translating that into a plan of action that is articulated and understood to the lowest levels of the organization. For a large and bureaucratic hierarchical organization like the Army, it is imperative that change be both led and managed. This requires soldiers, leaders and led, to maintain some key competencies highly relevant to effective change:

- Management of attention through consistent vision and goals
- Management of meaning-open communication up, down, and laterally
- Management of trust-constancy and reliability of the institution and its goals/methods
- Management of self-sustaining focus and balance[20]

Williamson Murray and Barry Watts further elaborate on the environment of effective innovation in peacetime by prescribing a leader's vision to be balanced with operational reality, acceptance by senior leaders, and "change agents" with an open voice, explaining/testing/refining future concepts, and controlling the nature of chance and its contingent factors. [21] The root of all the discussion on the examples of effective change from our history and their application to Army transformation lies in the factors of leadership and communication. These are a central theme of effectiveness in military units or any other organization. Open and honest dialogue on matters of great importance not only leads to a better product but a sense of inclusion in the process and pride in the end result.

WHY AN ARMY?

Why indeed do we have any Army? The Constitution only provides for Congress to raise and support one, not maintain one.[22] There is no clear and credible near peer competitor on the global strategic horizon. The US certainly reigns supreme in air, naval, and nuclear power; and has repeatedly demonstrated the capability to address threats to national interests by the use of precision guided conventional means without placing an American in harm's way. The Marine Corps, an expeditionary force by organization, forward presence, and tradition, is demonstrably capable of handling the small-scale no/short-notice contingencies that continue to be the prevalent requirement for our armed forces and they do it quickly and visibly.

So again the question, why an Army? Because the environment in which we live today and into the foreseeable future dictates the need for a force with unique capabilities for deterrence and fighting. This requires the mutual and complementary

effects provided by the combined power of air, sea, littoral, land, and space capabilities. Our own leadership states the purpose of our Army clearly:

> "Soldiers enable America to fulfill its world leadership
> responsibilities of safeguarding our national interests, preventing
> global calamity, and making the world a safer place...by finding
> peaceful solutions to the frictions between nation-states,
> addressing the problems of human suffering, and when required,
> fighting and winning our Nation's wars-our non-negotiable contract
> with the American people."[23]

Given that the above quotation is a straightforward and cogent statement of purpose for the Army, why is there any question as to the need?

I believe the answer lies in the notion of national strategy and the Army's relative and relevant position as an executor of that strategy. In the period since the demise of the Soviet Union and the overwhelming military accomplishments of Desert Storm, we have seen an increase in the use of the Army in roles other than the one "non-negotiable contract" from the Army vision of 1999; the document that really set transformation in motion. Many view this is a departure from a warrior ethos; that the missions performed superbly by soldiers are alien to our profession and while "...often praiseworthy, have clearly broadened the myriad tasks that military units must master... and (have) altered perceptions about the essence of the military profession."[24]

Whether they are alien or not is basically an irrelevant question when viewed through the prism of strategic requirements. More bluntly, in an era of constant or even shrinking resources the Army must be a relevant means to achieve the strategic ends it purports to serve or "public discontent with the purposes to which the Army's efforts are applied in time inevitably come to include frustration and discontent with the Army itself."[25] This frustration manifested itself overtly during Viet Nam when protests over government policy inevitably turned to actions against soldiers themselves. More recently, the frustration was evident over decisions to employ the Army in the Balkans in stability and support operations. That frustration, coupled with the perceived or real inability to be strategically responsive provides the impetus and necessary catalyst for transformation.

There is also a necessary question of relevance, which may be akin to the Pentomic era discussed earlier. Instead of nuclear weapons, we find ourselves today working to define our relevance relative to the increased reliance on precision munitions and the proliferation of information technology. Granted there may be no near-peer competitor today, but there is no

similar assurance for the future. As Bradford and Brown stated in 1973 when there was still a clear threat from the Soviet Union "...one cannot prove the need for any particular level of ground forces, but prudence dictates that we ought to retain one for unknown but probable contingencies which will take place within an uncertain future political context."[26] Certainly then, in the current era of the increasingly uncertain future political context there is not only a need for maintaining our current land power strength, but potentially an even greater requirement for powerful and capable ground forces.

Power equals the capability and the political will to employ force, in our case military force, to achieve a stated strategic end. If power serves the capability portion of its purpose correctly, then a prudent potential adversary weighs the cost of challenging the United States before pursuing a military option. If the cost exceeds the gain, military force becomes a sub-optimal course of action and the military therefore serves as a tool of deterrence. Colin S. Gray has expanded on the traditional Clausewitzian definition of strategy to account for the strength of deterrence as follows. "Strategy is the use that is made of force, *and the threat of force* (emphasis added) for the ends of policy."[27] The Army as a component of military force must therefore be seen in the world as powerful, as much by capability as by commitment. I am not suggesting that the Army and others be used for the sake of using. But the Army must remain engaged in missions to achieve strategic ends in pursuit of national interests, and can only do so if it remains powerful and capable. As Dr William Perry stated in his address at the inauguration of the Paul H. Nitze award in 1994, "I believe we can participate in creating the best kind of world tomorrow if we take the approach that made Paul (Nitze) a titan of strategic thinking-realism, pragmatism, hedging against uncertain outcomes, but not being afraid to try to influence outcomes in a positive direction."[28]

Exerting influence globally implies the need for a range of Army capabilities beyond those successfully designed and built for meeting and defeating the Soviet Union in Europe; capabilities that stood the test of combat and remain a powerful force today. But as we have seen in recent missions, that organization may not be suited for current or emerging missions. Assuming that our current strategy of global engagement remains valid for the foreseeable future necessitates a change in every aspect of the DTLOMS model. Army transformation is therefore a very important component, but it will only be ultimately effective if the entire armed forces evolve as well "into a strategically relevant force or (risk) perpetuating the status quo at high cost."[29] Power implies capability, but there still must be the means and will to use it.

So, what do we really want an Army for? Perhaps a better question is, what do we need an Army for? We need an Army that is enormously powerful, that provides a wide range of

capabilities to enact the strategy of our nation by deterrence first, and overwhelming decisive force when required. This implies that the Army will remain busy and visible, perhaps in operational or training missions that must relate to our non-negotiable contract of fighting and winning our nation's wars, or perhaps in support missions that assure regional stability in troubled parts of the world. But it is that tangible demonstration of power by the Army in every dimension that provides deterrence and the ability to influence the actions of potential adversaries before we have to fight. But, when called to fight, we retain the means to achieve the strategic ends as directed by policy. As Dr. Murray points out in his article on military forces and the nature of innovation in peacetime, war will occur again at some indeterminate point in the future against an opponent not yet identified, in political conditions that are unpredictable, and in an arena of violence and brutality which cannot be replicated beforehand.[30] The message in this is obvious: we better prepare now and stay ready into the future.

The requirement for transformation is clear and it is up to the Army in the field to embrace the tenets of it and provide honest feedback on its effectiveness to our leadership in order to make it better. We must not accept the status quo as good enough, nor can we blindly assume that every aspect of transformation as planned will be perfect or smooth. There are now and into the future, just as there were in the past, great ideas which will come as a result of trying new things. It is up to us all to remain committed and engaged in the process and open to dialogue to continue to improve the end product. We are not likely to predict today what 2025 will look like in terms of threats, the geo-strategic climate, or even the available technologies, but we must get on with the process and allow the Army to continue to evolve as an entity. Much like natural selection, the beings that don't adapt to their environment and become stronger and relevant will become extinct.

MILITARY CULTURE

It may be oxymoronic for some to place military and culture in the same phrase, much as the old joke about military intelligence. Culture in this sense, however, is an important component to the implementation of innovation. To drive this discussion, I use the definition of culture as "...the prevailing values, philosophies, customs, traditions, and structures that collectively over time, have created shared individual expectations within the institution about appropriate attitudes, personal beliefs, and behaviors."[31]

Much of the point of culture is rooted in the previous section on why our nation needs an Army. The point of our existence is directly related to national security and survival. It is a not so subtle difference, however, that those of us inside the organization often define ourselves

differently from those outside. In her trip underground, Alice tried to retain her form and position relative to the absurdity around her in order to fit, but was only ultimately successful in gaining entrance to the garden, not influencing any change to the environment. In her trip through the looking glass, however, Alice adapted her character to the environment and worked diligently to assume the role of the chess Queen, arguably the most adaptive and powerful piece on the board.

Our culture by nature is rooted in the order and hierarchy inherent in the structure of the military. We thrive on order and expect that the organization can maintain itself under the most intense of pressure. It is by virtue of this reliance on order and discipline that an effective military can withstand the rigor of war, the most extreme of human experiences. It may also be because of this culture, that the military can be so resistant to change. We want to be like Alice, and take on the characteristics of the chess Queen, but getting there often requires a leap of faith in the unknown that can be painful and disruptive to our natural state of order.

Eliot Cohen and John Gooch, in their work <u>Military Misfortunes, The Anatomy of Failure in War</u>, outline this inherent rigidity as failures learn, anticipate, or adapt. Individually, each is a simple failure that is recoverable, but collectively they quickly become complex failures that can lead to catastrophe.[32] It is therefore an equally important point of transformation, that the culture of the military evolves to learn, anticipate, and adapt to the ever-changing strategic environment without discarding the tenets in which it is grounded: not in the specifics of how the military achieves its strategic purposes, but why. [33]

The military has a natural bias for action and a pragmatic approach to getting the job done quickly and decisively, according to military historian and expert Frank Hoffman.[34] That is our hallmark and the reason the military is often the organization of choice in difficult situations that may be outside our normal scope of operations. Humanitarian assistance in Hurricane Andrew in Florida is an example of this. This "can-do" factor may be desirable when ordered to execution of a mission, but perhaps not when attempting the overhaul of our Army. The tension inherent in the dynamic of attempting to transform the Army for the future while maintaining readiness to fight today may be rooted in the earlier discussion of revolutionary versus evolutionary innovation.

To the average person in the Army today, it would appear that our current transformation contains elements of both types of innovation. We have consistency from the present in our legacy force, some revolutionary innovations occurring in support of the interim force, and a combination of both in the objective force. The achievement of the revolutionary portion will happen because it is, as the names imply, a legacy from the present and an interim solution for

the present and near-term future. The results are also tangible and realizable within relative resource constraints. In this case, the strategic ends dictate the chosen way, and the means are being visibly applied to achieve success.

The objective force faces a different problem. The statement of need appears to imply revolutionary innovation, but the absence of concrete solutions and the reliance on emerging or undeveloped technology necessitates evolutionary innovation. In this case, the strategic ends are somewhat indefinable. Although there is a clear requirement to do something new, it is based more on the desired effects to be gained from employment of a specific force than the specific identity of the threat force itself. The ways and means to achieve the desired strategic ends therefore deserve a healthy skepticism and debate from within the Army and the joint community.

Our culture, the notion of service to nation rooted but not mired in tradition must remain a constant. The Army as an entity must remain engaged in both the process and the product. Ground swell support for innovation and transformation comes with inclusion in being part of the solution. The organization can only achieve that, however, with a combination of support both from within and outside, and that base of support is currently difficult to discern. This is not a new phenomenon, but "...If history is any guide, sustaining an effective military culture in this time of transformation will require the support of timeless values and adequate resources coupled with an improved capacity for rapid adaptation to changing circumstances."[35]

So, how do we achieve something this enormous within the confines of the ambiguous strategic environment and our inherently hierarchical military structure? Again, I believe it is wise to fall back on history. Not to rely on what solution has worked in the past, but as a framework on which to build the future. If military misfortune has resulted in the past from failures to learn, anticipate, adapt, or a combination thereof, then we must therefore learn, anticipate and/or adapt.

Learning requires that "...military organizations should inculcate in their members a relentless empiricism, a disdain for a priori theorizing if they are to succeed." Anticipation is maintaining focus on the external strategic environment and "...think(ing) hard and realistically about the politico-military conditions under which it (war) will occur." Adaptation is mostly about the initiative of subordinates to meet the challenges of the future under the overarching intent and the underwriting of mistakes by the senior leadership of the Army.[36] Whether using our extensive professional military education system, the Army in the field, the battle laboratories, contractors, publications, or any other means, transformation requires that each soldier buy into the importance of the national security requirement and participate. The revolutionary aspects of

streamlining equipment acquisition and ensuring the resources are available to execute transformation is the responsibility of the Army's senior leaders and Congress. The evolutionary aspect is the responsibility of all of us, and absolutely dictates the intellectual involvement through debate, experimentation, and honest communication in every direction.

William Crockett, writing in 1977 on "Introducing Change to a Government Agency," stated that organizational change doesn't guarantee behavioral change; but that the "real power and authority for achieving the spirit envisaged for the change lie with the people themselves...that change must be well-planned, coordinated, and communicated."[37] What transformation is striving for is a proactive adaptation to the current and emerging strategic environment, but without discarding those aspects of our culture that define us as the United States Army. Again, not defining ourselves so much in how we execute our missions, but who we are while doing them. Army culture must transcend traditional notions of specific branch or background, and move ahead if we want to be a viable and relevant strategic element of power. We are like "premiums paid for accident insurance...the likely kinds of mishaps influence the form of protection we buy."[38] But to continue that analogy, "If we are in a buyer's market, we must serve it, not dictate our terms to it...(we must) provide a wide range of capabilities."[39] Our nation deserves it, our civilian leadership expects it, and it is up to us to build on the strength of the tradition of service our culture provides without resorting to the inherent and sometimes parochial rigidity it produces.

EXPERIMENTATION

> "...in view of all these new conditions and the prospect of many more to come, we should seek to become an adaptive society, detached from allegiances to specific products or procedures which will change; committed instead to engagements in the process of living..."[40]

Testing or experimenting with transformation may be at once the simplest and most difficult thing to achieve. Just as was noted earlier in that the arena of violence inherent in war cannot be replicated in advance, the same may be said for many of the other conditions as well. We cannot currently even identify what the objective force looks like, only what its capabilities ought to be. But some things are fairly familiar or on the edge of familiarity at worst.

There is an entire community and infrastructure built in the Army and expanded to include the joint armed services devoted to testing and experimentation. It is not the intent of this paper to reexamine that aspect of testing, other than to acknowledge its existence and the

important groundwork it has laid for the ongoing transformation. At this point in the current environment of innovation, I believe is significantly more important to discuss the intellectual basis of testing innovations and how to incorporate the results into a higher quality evolutionary product.

Transformation is larger than innovation, however. By definition, transformation is "to change completely or essentially in composition or structure." This could certainly be accomplished accidentally, as a result of some external pressure. Or, as in the current Army transformation, it is being executed as a result of external pressures from the reality of the global security environment coupled with a vision and plan from within. Again, balancing the tensions inherent in the external and internal pressures is a dynamic which must be recognized and managed by senior leaders but requires the active participation of all soldiers.

There are formal and informal methods by which testing and experimentation must occur for transformation to achieve maximum effectiveness. Within the total armed services, Joint Forces Command in Norfolk has responsibility for joint experimentation with the mission "...to lead the transformation of America's military...through an iterative process...to explore the most critical war fighting challenges at the operational level..." which will be accomplished through a series of exercises such as UNIFIED VISION '01 and MILLENNIUM CHALLENGE '02.[41]

Within the Army there are numerous tools of formal experimentation designed to execute individual or collective complementary experimentation of future concepts and equipment. This process has been significantly highlighted during the recent and ongoing series of Advanced Warfighting Experiments in support of the digitized Force XXI. Again, TRADOC is the overarching headquarters providing the "strategic and operational overwatch (for) a process of ongoing experimentation coupled with fielding a new force."[42] Subordinate organizations and groups Concept Experimentation Programs use the battle laboratories and others to "evaluate and capitalize on emerging technology, material initiatives, and warfighting ideas...(and) facilitates experiments to determine the military utility on the potential of an idea to become a DTLOMS solution to a future operational capability."[43] The work provided by these organizations in critical to the testing and ultimate fielding of important new capabilities; especially those revolutionary innovations that are top-down driven and require more rapid assessment.

In the case of transformation, however, there is a mix of revolutionary and evolutionary innovation at work and this requires a larger community of "testers" than those charged with that specific requirement. It is necessary to retain those parts of our culture which define "who" we are while allowing us the opportunity to explore the "how" we do business part. As stated earlier, evolutionary innovation is more inefficient in terms of time but for true transformation to take

hold requires that the society, in this case soldiers, buy into the process and the product. This is not to imply that the Army won't follow orders, but rather that an inclusive process is more likely to produce a better result.

There are numerous studies on corporate innovation, and efficiency experts abound on the subject of organizational innovation and effectiveness. Again, that topic alone could be a subject of its own paper or book. More specific to our subject at hand, however, is how can the Army make course corrections in the transformation that has already begun? The first choice will be made for us, and that will a direct reflection on the resources allocated to achieve the various objectives of transformation. It seems to be an obvious imperative for the continued success of this endeavor, that the <u>relevance</u> of the Army as the decisive land power must be the consistent theme both within and outside the Army. We must speak with a singular voice that the power of the Nation to deter war lies with the ability to project and sustain decisive land power, potentially for protracted time, in order to achieve strategic results.

The best method to accomplish that objective is for the Army to be a large and inclusive experimental community, willing to take some risk in the present for a better product in the future. The value of the combat training centers in helping to shape the forces that overwhelmingly defeated our enemies in Operations Just Cause and Desert Storm are but one example of inclusive and evolutionary experimentation. The "society" had a stake in the results and bought into the concept. The training currently being conducted by the Interim Brigade Combat Teams at Fort Lewis is another example of adaptive experimentation by the Army. As demonstrated there and elsewhere, the technological or linear solution may not produce the best result, thus a return to the notion of DTLOMS as a construct for evaluating a concept and implementing change as required.

Lieutenant Colonel Bryon Greenwald, in his Land Warfare Paper, gives us some insights to achieving success in military innovation by use of proper timing, continuity for change agents, and consensus in support of that change. Among these, I agree that consensus is the most important, and can only be obtained "...within the Army using the irrefutable logic of their ideas backed by empirical evidence obtained through realistic, objective trials. Only when the Field Army accepts the benefits of change and believes it has a stake in the modernization will the rank and file tear down the bureaucratic barriers impeding the progress of innovation and support the change."[44] This is absolutely critical to the process of effective transformation.

The Army, as discussed above in the section on culture, is not by nature very open to change. We are deeply rooted in tradition and hierarchy that serves us well. But the Army also has a tradition of adaptation at the lower tactical level that has produced enormous and

victorious success over our history. The true value of experimentation with regard to transformation will be the effective combination of these strengths to produce a lasting and extraordinarily high quality product, because in "...view of all these new conditions and the prospect of many more to come we should seek to become an adaptive society, detached from allegiances to specific products or procedures which will change; committed instead to engagements in the process of living."[45]

CONCLUSIONS

Our Army, much like the Nation, has been following an evolutionary path since its inception. Because of our unique relationship to the society we serve, the Army must be responsive and adaptive to the changing strategic environment internally and externally. Transformation should be nothing new to us, just another step in the evolutionary process. But that does not appear to be the case.

Much as innovation in the historical periods discussed was based on the strategic context of a discrete era, so is our ongoing transformation. What made them successful was the awareness of the contextual nature of change and playing to the strengths while mitigating against the risk inherent in weaknesses. We are currently in an era of virtually sole superpower status with no near-peer military competitor on the short-term horizon. Historically, this should be a point in time where we can afford to assume some risk for the present while building for the future. There are competing budget demands internally as well, however, and the lack of a tangible major military threat makes increasing the defense budget a difficult sell to Congress and the American people. This is neither a new nor unique phenomenon in our history, but one that demands strict attention as it will be the most immediate limiting factor on the Army's ability to achieve the goal of transformation.

Numerous theorists, historians, and others who think and debate about the issues of national security as a profession argue that our path to the future begins with study of the past. The two examples cited earlier in this paper are small but important illustrations of innovation. Those who built the Army from a frontier constabulary into the expeditionary force of World War I; or those who endured the inter-World War years and led the military to victory in World War II provide other extraordinary examples of innovation in the face of small budgets and the primacy of domestic issues. The question for the Army today then lies with understanding how our predecessors accomplished so much and what framework they provided as we look to the future? Again, I rely on Dr. Williamson Murray and his prescription for effective innovation in the future. He counsels us that "Innovation demands officers in the mainstream of their profession, with some prospect of reaching the highest ranks, who have peer respect, and who are willing

to take risk. The bureaucratization of innovation-particularly in the current framework of the US military-guarantees its death."[46] His method outlines the six major themes that follow.

-Focus efforts within a realistic framework-work from strategic ends backwards.

While the Army is working on a capabilities-based force without a clearly recognizable threat, we must develop each aspect of the DTLOMS against a real opponent with real counter-capabilities. When "fighting" our capabilities, whether in simulation or in force-on-force exercises, the opponent must be skillfully and doggedly fought as well; making every effort possible to defeat us. The exercises fought at the various service schools in the inter-World War years that resulted in the development of products such as Plan Orange, the strategic and operational response to a Japanese threat in the Pacific are examples of this.

Two other aspects of developing the strategy first are also very important. The first is that although Army Transformation is the subject at hand, no change or innovation will be realistically assured without incorporation into an overall joint force transformation. This is equally true in the weapons and support systems we develop and procure as in the methods by which they are employed, because "...without the consensual support of the officers who must implement joint operations, a coherent view of warfare that cuts across service lines will not emerge."[47] By jointly developing the best ways to meet the strategic ends, the Army retains its appropriate position as the world's dominant land power.

The second aspect, and perhaps the reigning one as briefly discussed above, is to ensure that the means to implement the ways to achieve the ends are present. That assumes adequate resources are available to provide the means and requires enormous efforts on the part of the senior military leadership to convey this to our civilian leadership in the executive and legislative branches. It must be a two-pronged statement of fact, however, that is emphasized when discussing means. The first is a needs statement of the required forces in soldiers, equipment, research, and development. The second is a factual statement of strategic risk that must be understood at the highest levels if the means are not provided. Only this can accurately convey Army capabilities and limitations in the strategic environment.

-Develop and execute realistic operational exercises-do fewer better.

The Army continues to work at a furious pace in pursuit of assigned missions. The operational tempo is high, deployments are many, and the pace shows its strain on units in the field. Being busy is nothing new, nor is it inherently bad. Where tension lies is in the question of busy doing what? There will continue to be requirements for operational and training deployments throughout the world in support of strategic ends. That fact, coupled with training readiness requirements, is what the Army in the field should be doing. As discussed earlier, our

power as an Army lies first in the inherent deterrence provided by tangible demonstrations of our land power.

But the value of tactical exercises, as we see at the combat training centers, lies as much in the after action review as in the execution. Having an objective assessment of the strengths and weaknesses of a particular operation, and being able to take that assessment as a basis for building a better product through the DTLOMS process is an enormous strength in the US Army. The same should logically be true of higher-level exercises as well. Doing more, however, does not necessarily connote that they will be better.

To make Army Transformation as envisioned by the Army's leaders into a dynamic era of innovation, exercises and testing must become distributed and relevant. As in the post-Viet Nam era, participants must feel they are part of the solution; that their efforts are important; and the scope of participation must also increase. Again, the use of the various service schools at all levels provide many of the resources required to exercise concepts and "distill" results for debate and analysis. Rather than studying and fighting the last wars, let's study the results of the last, and work in proposed concepts for emerging warfare and fight it out using the expertise of faculties and recent field experience of students.

-Don't allow results to automatically validate proposals.

Alice made an a priori assumption that the only place she would be happy underground was in the garden-the most familiar place-and therefore worked diligently but not intelligently to make herself fit through the door to get there. This is the "self-licking ice cream cone" approach to analyzing results of experiments or exercises: decide what result you want to achieve and then build an event to meet success. As in the previous section on the importance of conducting finite numbers of "fights" and the value of distillation of results, the design of the event is equally important. This is especially true when evaluating revolutionary innovation because of the top-down nature and the relatively short initiation of its life cycle.

In the Interim and Legacy forces, for example, our exercises must be careful to realistically identify shortcomings and provide mitigation where possible without jeopardizing soldiers or the investment in the Objective forces. This implies a cogent assessment of the risks involved in operational employment of these forces, both strategically for the country and operationally/tactically for the warfighters themselves. It also requires rigorous examination under the most realistic and challenging conditions at every opportunity against an extraordinarily capable opposing force in every dimension. There will be dark days in terms of results, just as there were in the early 1980s at the combat training centers, but the end absolutely justifies the means; just as Desert Storm did for the National Training Center.

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Results must be used as a bottom-up feedback loop within the DTLOMS construct to make the product better.

The Objective force must also be realistically examined against a highly capable and effectively employed opposing force. Because of the heavy reliance on emerging and future technologies in the Objective force, the initial set of exercises will be in simulation as discussed earlier. This more evolutionary innovation approach, however, affords us the opportunity to test entirely new concepts while continuing to develop the necessary materiel in parallel experiments. It is perhaps in this arena that the use of institutions and organizations such as the service schools working cooperatively with the vast network of civilian organizations devoted to strategy and national security could assist in producing the best "pot of soup."

Develop and implement realistic and useful measures of effectiveness.

This relates directly back to the questions of what do we want an Army for and how do we define ourselves? The first question must lead in a straight line to the National Security and National Military Strategies and therefore must be answered by the political leadership and people of the United States. There are an infinite number of options in the spectrum of potential conflict, especially when considered in the current strategy of global engagement. Regardless of the strategic ends to be achieved, however, is the fact that the US Army is today and must remain the dominant land power in the world if our Nation is to retain its position of global superpower.

The second question therefore, is directly tied to the notion of power. If we buy into the notion that the Army as part of the joint team will be used as the threat of force for deterrence, followed by actual force as required in pursuit of national policy, then our self-definition seems to be fairly easy. There will be, however, those missions like those being superbly executed today in the Balkans, among others, that seem to remain somewhat diverted from either the threat of force or actual force. I contend that those missions are a demonstration of national power because of presence and perhaps it is in the choice of who executes these type missions rather than whether they ought to be executed. The highly visible incorporation of all elements of "The Army", for example, into the Bosnia and Kosovo rotations, is an important statement of national power.

The Army must apply some strong intellectual and historical thought into self-examination in this era of transformation, if we truly want to accept the full definition of the word into complete change. The notion of professionalism and deeply rooted values and traditions of our culture must be preserved and adapted to the dynamic strategic environment of the current and emerging world. Our predecessors in the late 19th century fighting on the geographical

frontiers of the expanding nation could scarcely have conceived that their units would shortly be fighting in the Caribbean, China, and the Philippine Islands by the turn of the century; or in a major European War by 1917. Realistic measures of effectiveness lie therefore in both the why and the how questions of how we meet our obligations.

-Professional education and its institutions are keys to fostering innovation.

This may be a blinding flash of the obvious, but the military schools system provides extraordinary potential for promoting and leading innovation. Especially in the current era of transformation, the Army professional education apparatus should be buzzing with curiosity, debate, and exercise of the concepts surrounding all aspects of the change. Certainly as the process of transformation continues, there should be an increased use of the education apparatus to test new concepts and provide the opportunity for some reflective thought and active debate on the relevant issues.

An important component of transformation, the process of complete structural change, may be the emergence of the importance of professional education and its influence on actions in the operational force. The value of education is ingrained in our national culture, but its importance must be equally and obviously evident in our military culture as well. As discussed in the value of using the service schools as distributed centers of conceptual experimentation and exercise, use the operational requirements of the force to drive the instructional curriculum of the schools. In other words, tie the education to the realities of the real operational environment as opposed to creating fictitious scenarios or refighting the last war.

-Importance of non-linear analysis.

Popularized as thinking outside of the box, the notion of non-linear analysis may at once be the most obvious and yet the most difficult aspect of building and ensuring irreversible momentum. Most military people by nature seem to be cause and effect thinkers and actors. We like to see reasonably predictable results from our actions. It is ironic, therefore, that the military consists at its core of people and it is humans' interaction that often force non-linear results.

The conceptual basis of transformation and its testing and application must be continually evaluated against equal or greater opposing concepts in human terms. More simply put, there must be a thinking human interaction in the decision loop of innovation and transformation. Whether it is in the initial and ongoing stage of strategic assessment or the development of concepts to prosecute the strategy, there must be a dynamic and human interaction determining the appropriateness and effectiveness of the product; rather than sheer reliance on technological adequacy. Again, this must be reinforced in our professional education

system, in the design of our exercise programs, and most importantly in the maintenance of healthy professional dialogue.

Transformation for the Army in 2001 and beyond is of vital strategic importance to the security of the United States. We must transform to meet the stated vision of our leadership, to be a viable and relevant component of the joint services team. We must also transform to meet the strategic realities imposed by our domestic and international policies, and the capabilities of threats to the national interests of the nation. We may not be able to identify the specific person, group, or nation who will choose to employ that capability to threaten the United States, but we must be prepared today and into the future. Sun Tzu said that the acme of skill was to place yourself in a position of strength where you did not have to fight, to win by virtue of deterrence through power. We must do that, and be prepared to fight and win our nation's wars: the non-negotiable contract.

Building irreversible momentum for ensuring successful transformation requires planning, hard work, and a commitment from The Army. Our leadership has established the vision within our national strategy and developed a campaign plan for execution. "Line of Operation 13:Strategic Communications," requires that The Army communicate…to internal and external audiences to inform, educate, and build consensus, garner support, and to acquire the resources for Army Transformation."[48] It's time for us to get through our looking glass of the present, question every assumption and try new things to make ourselves better; committed to remaining the decisive choice of land power dominance in support of our national strategic objectives today and into the future.

WORD COUNT=11,004

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